

REMARKS

Initially, Applicants would like to express appreciation to the Examiner for the detailed Official Action provided, for the acknowledgment of Applicant's Claim for Priority and receipt of the certified copy of the priority document, and for the acknowledgment of Applicant's Information Disclosure Statement by return of the Form PTO-1449.

Upon entry of the above amendment, claims 1 and 9 will have been amended. Accordingly, claims 1 and 6-10 are currently pending. Applicants respectfully request reconsideration of the outstanding objection and rejections and allowance of claims 1 and 6-10 in the present application. Such action is respectfully requested and is now believed to be appropriate and proper.

The Examiner has objected to the specification for minor informalities. Applicants respectfully submit that in view of the herein contained remarks, the basis for such objection is not appropriate and Applicants thus respectfully request reconsideration and withdrawal of the objection to the specification.

In particular, the Examiner has objected to the specification on page 19, line 6, as referring to a figure not provided in the drawings, since the application does not contain figure 1C. However, Applicants point out that line 6 of page 19 refers to "hair iron 1C", and not to figure 1C. Hair iron 1C is clearly shown in figure 16A. Therefore, contrary to the Examiner's assertions, the specification does not refer to a figure that is not provided in the drawings.

Accordingly, in view of the above noted remarks, it is believed that the objection to the specification is not appropriate, and Applicants respectfully request reconsideration and withdrawal of the outstanding objection.

The Examiner has rejected claims 1 and 6-8 under 35 U.S.C. § 103(a) as being unpatentable over JAKKU (JP 60-227708) in view of BABA (JP 09-000350).

Although Applicants do not necessarily agree with the Examiner's rejection of claim 1 on this ground, nevertheless, Applicants have amended independent claim 1 to clearly obviate the above noted ground of rejection in order to expedite prosecution of the present application. In this regard, Applicants note that JAKKU and BABA fail to teach or suggest the subject matter claimed in amended claim 1. In particular, claim 1, as amended, sets forth a hair setting instrument including, inter alia, a mechanism for setting hair of a user, and an electrostatic charger which supplies charges to the user's body including "a charging circuit which receives a commercial power supply and generates a negative predetermined voltage relative to the ground" and a charging plate electrically connected to the charging circuit. This amendment is fully supported by the specification, including the claims and drawings, and no prohibited new matter has been added. In particular, support for this amendment can be found at least in the specification on page 9, line 7 through page 10, line 17 and in figure 2.

In Applicants' claimed invention, a commercial power supply is connected to the earth (*i.e.*, ground), and the charging circuit receives a commercial power supply to generate a negative predetermined voltage relative to the earth.

The hair on a person's head tends to become positively charged due to setting techniques such as brushing, blow drying, curling with a curling iron, or straightening with a straightening iron. It is desirable to easily set such hair that has become positively charged.

Applicant's hair setting instrument as claimed in claim 1, as amended, includes (a) a mechanism for setting the user's hair; and (b) an electrostatic charger which supplies a charge to the user's body for electrostatic charge generated by the movement of setting the hair. In the electrostatic charger of the instant invention, a charging circuit receives a commercial power supply and generates a predetermined negative voltage relative to the ground. A charging plate is electrically connected to the charging circuit. When the user contacts the charging plate, the charging plate supplies a charge to the user's body due to the predetermined negative voltage outputted by the charging circuit.

In the hair setting instrument of Applicants' invention, the charging circuit uses a commercial power supply (shown, for example, in figure 2). A negative voltage relative to the ground is generated and supplied to the charging plate. When the user touches the charging plate, a circuit including the user's body and the ground is created. This is in direct contradistinction to the prior art. In Applicants' claimed invention, a negative charge, having polarity opposite to the positive electrostatic charge of the hair, is supplied to the user's body. The user's body is also charged positively, though not as much as the hair is charged. The user's body becomes charged negatively due to the negative voltage of the charging plate. Because the formerly positively charged hair becomes negatively

charged, the hair will not expand, and the hair can be easily set. Further, even if the hair is positively charged after setting, the body is not charged or charged negatively, so that repulsion between the user's body and the hair is small. Thus, the set hair is not effected by the user's body's charge and the hair stays as it was set.

The JAKKU publication discloses a hair brush including a battery 4 (or 12) in the brush head 2 or in the grip 3. The positive terminal (the anode) of the battery is connected via the lead 5 to the electrically conductive cover 6, while the negative terminal (the cathode) is connected via the lead 7 to the holder 8 for holding the electrically conductive bristles 9, 9A. When one holds the grip 3 and brings the bristles 9, 9A into contact with one's head, an electric circuit is formed. However, when the battery 4 (or 12) is used, the charge flows in the following order: from the positive terminal of the battery to the lead 5 to the electrically conductive cover 6 to the hair to the holder 8 to the lead 7 to the negative terminal of the battery. The flow is completed between the battery and the user. See particularly figure A, provided as an attachment hereto for the Examiner's convenience. Therefore, the electric circuit does not include the ground; and therefore the amount of charge in the hair can not be changed. The positive and negative terminals of the battery "float" relative to the ground. Because the charge flow cycle is completed between the battery and the user, the amount of charge can not be controlled with the use of the hair brush. When the hair has a large electrostatic charge before the hair is set with the hair brush, the charge can not be removed. When this hair brush of JAKKU is used, the electric

potential of the user's body remains the same. Therefore, as the hair is positively charged after setting, repulsion between the user's body and the hair occurs, and the set hair can not be maintained. As described fully above, the JAKKU device uses the cathode of the battery as the reference. This is in direct contradistinction to Applicants' instant invention, which includes a negative voltage relative to ground, so that the user's body can be effectively negatively charged.

Additionally, in the JAKKU device, the cover 6 provided for the grip 3 of the hair brush corresponds to the charging plate of the invention, and a positive voltage is given to the cover 6. However, as fully described above, in Applicants' claimed invention, a negative voltage is provided to the charging plate. In the instant invention, the charger generates a negative voltage relative to the ground. Because the circuit includes the ground, the charge in the user's body, if any, can be removed. See particularly figure B, provided as an attachment hereto for the Examiner's convenience.

Accordingly, the JAKKU publication does not teach or suggest a hair setting instrument including, inter alia, a mechanism for setting hair of a user, and an electrostatic charger which supplies charges to the user's body including "a charging circuit which receives a commercial power supply and generates a negative predetermined voltage relative to the ground" and a charging plate electrically connected to the charging circuit", as set forth in amended claim 1.

The BABA publication is directed to a hair brush in which a high voltage generated by the high voltage generator B is supplied to the discharger D in the

main body of the hair brush. In the discharger D, the discharge electrode 10 and the dielectric electrode 11 are stuck to the two sides of the dielectric material 8. By applying a positive or negative voltage to the electrodes 10, 11, discharge occurs, and positive or negative ions are generated in addition to ozone at the side of the dielectric electrode 11. The generated ozone and ions are ejected towards the hair through many holes provided at the lower plane of the main body E of the hair brush. The polarity of the ions generated by the discharger D can be changed with use of the switches S1 and S2.

In the hair brush of BABA, ions and ozone can be ejected through the holes 7, as described above. This ion charging gives a charge to the user's body and attracts particles floating in the air toward the user's body. See particularly figure C, provided as an attachment hereto for the Examiner's convenience.

However, the hair setting instrument of Applicants' claimed invention provides that the charge in the user's hair flows through the user's scalp and the charging plate to the commercial power supply. See particularly figure D, provided as an attachment hereto for the Examiner's convenience. Accordingly, the technology of the BABA device is entirely different from that of the present invention. In this regard, the grip 1 of the hair brush of BABA does not have a component that corresponds to the charging plate of the present invention.

Therefore, the BABA patent fails to cure the deficiencies of the JAKKU device, and even assuming, arguendo, that the teachings of JAKKU and BABA have been properly combined, Applicants' claimed hair setting instrument would not have resulted from the combined teachings thereof.

Further, there is nothing in the cited prior art that would lead one of ordinary skill in the art to make the modification suggested by the Examiner in the rejection of claim 1 under 35 U.S.C. § 103(a) over JAKKU in view of BABA. Thus, the only reason to combine the teachings of JAKKU and BABA results from a review of Applicants' disclosure and the application of impermissible hindsight. Accordingly, the rejection of claim 1 under 35 U.S.C. § 103(a) over JAKKU in view of BABA is improper for all the above reasons and withdrawal thereof is respectfully requested.

Applicants submit that dependent claims 6-8, which are at least patentable due to their dependency from claim 1 for the reasons noted above, recite additional features of the invention and are also separately patentable over the prior art of record based on the additionally recited features.

The Examiner has rejected claim 9 under 35 U.S.C. § 103(a) as being unpatentable over JAKKU in view of BABA, as applied to claim 1, and further in view of TSUJI (U.S. Patent No. 4,936,027).

However, Applicants note that JAKKU and BABA fail to teach or suggest the subject matter claimed, including, inter alia, a mechanism for setting hair of a user, and an electrostatic charger which supplies charges to the user's body including "a charging circuit which receives a commercial power supply and generates a negative predetermined voltage relative to the ground" and a charging plate electrically connected to the charging circuit", as set forth in amended independent claim 1, as described above. Further, TSUJI fails to cure these deficiencies. Moreover, there is nothing in the cited prior art that would

lead one of ordinary skill in the art to make the modification suggested by the Examiner in the rejection of claim 9 under 35 U.S.C. § 103(a) over JAKKU in view of BABA and further in view of TSUJI. Thus, the only reason to combine the teachings of JAKKU, BABA, and TSUJI results from a review of Applicants' disclosure and the application of impermissible hindsight. Even if the teachings of JAKKU, BABA, and TSUJI were combined, as suggested by the Examiner, the claimed combination would not result. Accordingly, the rejection of claim 9 under 35 U.S.C. § 103(a) over JAKKU in view of BABA and further in view of TSUJI is improper for all the above reasons and withdrawal thereof is respectfully requested.

The Examiner has rejected claim 10 under 35 U.S.C. § 103(a) as being unpatentable over JAKKU in view of BABA, as applied to claim 1, and further in view of HABIBI (U.S. Patent No. 6,119,702).

However, Applicants note that JAKKU and BABA fail to teach or suggest the subject matter claimed, including, inter alia, a mechanism for setting hair of a user, and an electrostatic charger which supplies charges to the user's body including "a charging circuit which receives a commercial power supply and generates a negative predetermined voltage relative to the ground" and a charging plate electrically connected to the charging circuit", as set forth in amended independent claim 1, as described above. Further, HABIBI fails to cure these deficiencies. Moreover, there is nothing in the cited prior art that would lead one of ordinary skill in the art to make the modification suggested by the Examiner in the rejection of claim 10 under 35 U.S.C. § 103(a) over JAKKU in



view of BABA and further in view of HABIBI. Thus, the only reason to combine the teachings of JAKKU, BABA, and HABIBI results from a review of Applicants' disclosure and the application of impermissible hindsight. Even if the teachings of JAKKU, BABA, and HABIBI were combined, as suggested by the Examiner, the claimed combination would not result. Accordingly, the rejection of claim 10 under 35 U.S.C. § 103(a) over JAKKU in view of BABA and further in view of HABIBI is improper for all the above reasons and withdrawal thereof is respectfully requested.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of all the rejections, and an early indication of the allowance of claims 1 and 6-10.

#### SUMMARY AND CONCLUSION

In view of the foregoing, it is submitted that the present amendment is proper and that none of the references of record, considered alone or in any proper combination thereof, anticipate or render obvious Applicants' invention as recited in claims 1 and 6-10. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.


Accordingly, consideration of the present amendment, reconsideration of the outstanding Official Action, and allowance of the present amendment and all of the claims therein are respectfully requested and now believed to be appropriate.

Applicants have made a sincere effort to place the present application in condition for allowance and believe that they have now done so.

Any amendments to the claims which have been made in this amendment, which do not narrow the scope of the claims, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered cosmetic in nature, and to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,  
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Attachment: Two Sheets Of Explanatory Figures